

REMARKS

Claims 4-5, 9-11, 28 and 31-34 are pending in this application. By this Amendment, claims 4 and 28 are amended. Various amendments are made for clarity and are unrelated to issues of patentability. Support for the amended features is provided at least at paragraph [0071] of the present specification.

The Office Action rejects claims 4-5, 9-11, 28 and 31-34 under 35 U.S.C. §103(a) over U.S. Patent 6,496,194 to Mikoshiba et al. (hereafter Mikoshiba) in view of U.S. Patent Publication 2001-083926 to Okomoto et al. (hereafter Okomoto). The rejection is respectfully traversed with respect to the pending claims.

Independent claim 4 recites detecting false contour generation regions from each of first video data for a previous frame period and second video data for a current frame period, each false contour generation region including a pixel corresponding to a gray scale generating a false contour and pixels corresponding to adjacent gray scales, extracting a motion information from the detected false contour generation regions of the first video data and the second video data, compensating a false contour by using the extracted motion information, and displaying transformed video data based on the compensated false contour. Independent claim 4 also recites that the compensating comprises: setting a compensation value in proportion to a velocity value and a size of the gray scale from the motion information, and adding or subtracting the compensation value to or from any of pixels whose gray scale has generated the false contour depending on a direction from the motion information.

The applied references do not teach or suggest at least these features of independent claim 4. More specifically, in the response filed August 20, 2007, applicants asserted that Mishikoba does not teach or suggest setting a compensation value based on the velocity value (and a size of the gray scale) from the motion information. In response, the Office Action (on page 7) states that “no fine pattern has been claimed and said inability to reduce disturbances which may result is hypothetical.” However, applicants discussed “fine pattern” in the August 20 response to show that Mishikoba’s col. 16, lines 50-55 does not relate to setting a compensation value based on a velocity value according to an image moving velocity and a size of a gray scale.

Mishikoba describes halftone display method for reducing halftone disturbances occurring in moving image portions. Mishikoba teaches a method to reduce halftone disturbances in case where more than one luminance block is assigned a large luminance weight such as in Fig. 19 where there are four most significant bit frames, SF6, SF7, SF8, SF9 that are assigned a same large luminance weight. Mishikoba’s col. 16, lines 31-39 describes that, in the prior art, when displaying the gray-scale level 159, for example, a least number of luminance blocks from among the luminance blocks having the largest luminance weight are selected. Mishikoba addresses this problem. More specifically, Mishikoba describes (in the abstract and the specification) that when determining luminance blocks for use to display gray scale of an arbitrary first pixel, the luminance blocks to be used for the first pixel are selected in accordance with a predetermined rule based on how luminance blocks are used for a second pixel located in close proximity to the first pixel.

Mishikoba does not teach or suggest setting a compensation value in proportion to a velocity value and a size of the gray scale, as recited in independent claim 4. Okamoto does not teach or suggest this feature of independent claim 4 missing from Mishikoba.

The Office Action (on page 3) asserts that Mishikoba's col. 16, lines 50-55 and col. 36, lines 45-50 discloses setting a compensation value. Applicants respectfully disagree. Mishikoba's col. 16, lines 45-55 describes that if a gray-scale level change is greater than the image moving distance per frame, then correct motion compensation is possible. However, in the case of a fine pattern, it is difficult to detect the correct speed. Applicants do not understand what relationship exists between the above section of Mishikoba and the claimed setting a compensation value in proportion to a velocity value and a size of the gray scale, as recited in independent claim 4. Applicants respectfully assert that the above section of Mishikoba does not correspond to the claimed features.

Also, Mishikoba's col. 36, lines 45-50 describes that reducing of halftone disturbance is made for moving images at various speeds and directions. However, this does not teach or suggest setting a compensation value in proportion to the velocity value and a size of the gray scale, as recited in independent claim 4. The disclosure regarding reducing being made for moving images at various speeds does not teach or suggest a compensation value in proportion to the velocity value and a size of the gray scale. Applicants respectfully assert that the above section does not correspond to the claimed features.

For at least the reasons set forth above, Mishikoba and Okamoto do not teach or suggest all the features of independent claim 4. Thus, independent claim 4 defines patentable subject matter

Independent claim 28 recites determining false contour generation regions, determining motion information from the false contour generation regions, compensating a false contour, and displaying video data based on the compensated false contour. Independent claim 28 also recites that the compensating comprises: setting a compensation value in proportion to a velocity value and a size of the gray scale from the determined motion information, and adding or subtracting the compensation value to or from any of pixels whose gray scale has generated the false contour depending on a direction from the motion information.

For at least the reasons set forth above, Mishikoba and Okamoto do not teach or suggest all the features of independent claim 28. Thus, independent claim 28 defines patentable subject matter

Accordingly, each of independent claims 4 and 28 defines patentable subject matter. Each of the dependent claims depends from one of the independent claims and therefore defines patentable subject matter at least for this reason. In addition, the dependent claims recite features that further and independently distinguish over the applied references.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of claims 4-5, 9-11, 28 and

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31-34 are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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